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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,956	11/21/2006	Arto Huotari	966934.00002	6749

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EXAMINER

MAI, HAO D

ART UNIT	PAPER NUMBER
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3732

MAIL DATE	DELIVERY MODE
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02/01/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,956	Applicant(s) HUOTARI ET AL.	
	Examiner HAO D. MAI	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 14-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-13, in the reply filed on 11/18/2009 is acknowledged. Claims 14-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

The traversal is on the ground(s) that both Groups I and II share several technical features. This is not found persuasive because Group I lacks multiple special technical features claimed in Group II. For example, Group 1 lacks the method recited in Group II; the detection mechanism when the fluid level reach below a limit value (claim 17 of Group II); and the pressure chamber being a chamber containing detergent (claim 24 of Group II). Note that Group I recite a general feeding water system, i.e. any feeding water system having the claimed structures and capable of being a dental unit would meet the claims. A search for such general feeding water system would be a broader than and/or different from a search for Group II's method for feeding water in a dental unit. The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 3-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- **Regarding claims 3, 7, and 13**, the phrases "such as" (claim 3 line 6), "like..." (claim 7 line 2), and "e.g." (claim 13 line 2), renders the claims indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
- **Regarding claims 9-10**, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). In the present instance, claims 9-10 each recites the broad recitation "...at a distance from the fluid/liquid level of the said open space, regarding its said set maximum height...", and each claim further recites "preferably at a distance above the fluid level" which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Holsclaw et al. (6,482,370).**

Regarding claim 1, Holsclaw et al. discloses a dental unit (Fig. 1) comprising a feed water line 12 for leading water to one instrument and/or to other points of use of water of the dental unit. The feed water line 12 includes a pressure chamber 20 which is in connection with

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a compressed air line (column 2 lines 58-61; column 10 lines 53-56); the pressure chamber 20 being arranged in functional connection with pressure control means, e.g. 36 or 38 (column 5 lines 54-58). Note that the feed water line 12 inherently has a pump capable of pumping/flowing water from the city water source to and against the pressure prevailing in the pressure chamber 12. **As to claim 2**, the pressure control means 36 is a valve capable of leading and purging air to and from the pressure chamber 20.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Holsclaw et al. (6,482,370) in view of Moore (3,014,620).**

Holsclaw et al. disclose the invention substantially as claimed except for the valve comprising at least one three-way valve. Moore discloses a water/pressure chamber 10 having a compressed air line 15 with a three-way valve 14 for introducing compressed air from a compressor 15 into chamber 10 and to exhaust air, e.g. by connecting the chamber to atmospheric pressure (Figure; column 2 lines 58-62). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Holsclaw et al. by utilizing a three-way valve in order to lock the chamber from communication with any pressure and connecting two different types of pressures to the chamber. Furthermore, such modification

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would have been a substitution of well known alternative valves which is within the skill of an artisan while yielding the same and/or predictable results.

8. Claims 4-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holsclaw et al. (6,482,370) in view of Yamada et al. (5,151,731).

Holsclaw fail to disclose the pressure chamber having a means for recognizing height of the fluid level and a water storage beside the pressure chamber. Yamada et al. disclose water replenishing system (Fig. 6) for tanks 121, 122, and 123, wherein a water storage tank 180 receives city water as needed under the control of a valve 186, by detecting the volume of water in the tank 180 dropping below a predetermined level (column 9 lines 1-15). **As to claims 4-5**, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Holsclaw et al. by including means for recognizing/detecting height of the fluid level in the pressure chamber so that the chamber can be refilled, e.g. by the city water source, according to the signals from the fluid height detecting means as explicitly taught by Yamada et al. **As to claim 6**, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Holsclaw et al. by including a water storage for storing water from the city line before being pumped into the pressure chamber so that the pressure chamber can be readily replenished as taught by Yamada et al. **As to claim 7**, the fluid height detection mechanism as disclosed by Yamada et al. is equivalent to the claimed means and/or structure to ensure that the fluid level cannot rise higher than desired. **As to claims 8-9**, Yamada et al. show in Figures 1-5 various water storage chamber, e.g. 2 in Fig. 5, being open to atmospheric pressure, and having a feed link for the water to be fed into the chamber from an external source. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the storage tank 180 of Figure 6 being open to atmospheric

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pressure as a choice well within the skill of an artisan while yielding the same results. **As to claims 10**, Fig. 7 shows chemical/detergent feed links 4a-4b into storage tank 12; it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Figure 6's storage tank 180 with such chemical/detergent feed links if required by the procedure.

Allowable Subject Matter

9. Claims 11-13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAO D. MAI whose telephone number is (571)270-3002. The examiner can normally be reached on Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**/Hao D Mai/
Examiner, Art Unit 3732**

**/Cris L. Rodriguez/
Supervisory Patent Examiner, Art Unit 3732**